#### UNITED STATES PATENT AND TRADEMARK OFFICE

Guenther et al.

Title:

GAME BALL COVER WITH

IMPROVED STRIPES AND/OR LOGOS

Appl. No.:

10/325,421

Filing Date:

December 20, 2002

Examiner:

Steven B. Wong

Art Unit:

3711

# AFFIDAVIT OF DOUGLAS G. GUENT

I, Douglas G. Guenther, depose and state as follows:

- 1. I am, and at all relevant times have been, the Director of Research & Development, Team Sports Division of Wilson Sporting Goods Co. ("Wilson"). I have personal knowledge of all of the facts set forth in this affidavit.
- 2. In an effort to obtain coefficient of friction information for a variety of different materials, in September 2005, Wilson Sporting Goods Co. ("Wilson"), under my direction, sought out an independent test laboratory to perform coefficient of friction testing of various materials in accordance with ASTM #D 1894-01 "Standard Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting." The materials tested included: a white single tone polyurethane ("PU") material used to form stripes on a football; a brown dual tone PU material used to form the cover panel of a synthetic leather football; genuine leather used to form the cover of a leather football; representative specimens of a Velcro® loop material; representative specimens of a Velcro® hook material; and a smooth plate of glass. Wilson

obtained the services of Gaynes Labs, Incorporated of Bridgeview, Illinois, an independent test laboratory, to perform the coefficient of friction testing. The test report includes the test procedure used and the results of the coefficient of friction testing.

- 3. On October 10, 2005, Gaynes Labs, Incorporated issued a test report regarding Coefficient of Friction Testing of Various Materials. A true and accurate copy of the test report from Gaynes Labs, Incorporated dated October 10, 2005 is attached to this Affidavit.
- 4. The test results demonstrated that the average static coefficient of friction value of five specimens of a Velcro® hook material was lower than the average static coefficient of friction value of five specimens of a Velcro® loop material. This result is consistent with coefficient of friction testing information we received from Velcro Group Incorporated.
- 5. The test results also demonstrate that the average static coefficient of friction values obtained from the testing of five specimens of each of the following three materials (genuine leather, a white PU material, and a brown PU material) were each significantly higher than the average static coefficient of friction value obtained from the Velcro® hook material and the Velcro® loop material.

FURTHER AFFIANT SAYETH NAUGHT.

Director of Research & Development

**Team Sports Division** 

Wilson Sporting Goods Co.

Subscribed and sworn to before me

this 3c day of November, 2005.

Terence P. O'Brien Notary Public, State of Illinois My Commission Exp. 05/07/2006



## GAYNES LABS, INCORPORATED

9708 INDUSTRIAL DRIVE • BRIDGEVIEW, ILLINOIS 60455

MEMBER: AMERICAN COUNCIL OF INDEPENDENT LABORATORIES

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EMAIL: gayneslabs@aol.com http://www.nrinc.com/gaynes

October 10, 2005

Wilson Sporting Goods Company 8700 West Bryn Mawr Avenue Chicago, Illinois 60631

Attention: Mr. Kevin Krysiak

Regarding: Coefficient of Friction Testing of Various Materials

Our Job No. 05448

Dear Mr. Krysiak:

Please find below the results of the tests that were conducted on the following materials:

- 1) 5 pieces, approximately 2.6" w. x 2.6" l., of white single tone PU material.
- 2) 5 pieces, approximately 2.6" w. x 2.6" l, of brown dual-tone PU material.
- 3) 5 pieces, approximately 2.6" w. x 2.6" l, of burnt orange genuine leather.
- 4) 1 roll, approximately 2" w. x 32" l., of white hook material.
- 5) 1 roll, approximately 2" w. x 32" l., of white loop material.
- 6) 1 piece, 2.5" w. x 2.5" l., of smooth plate glass, normally used for residential windows.

### **TEST PROCEDURE:**

The tests were conducted based upon ASTM D1894-01 Standard Test Method for Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting and your verbal instructions. The test materials were conditioned for a minimum of 48 hours at 73°F and 50% R. H. prior to testing and all tests were conducted at these conditions. The materials were prepared for testing as follows:

- 1) White Single Tone PU Material The submitted samples were trimmed to 2.5" w. x 2.5" l.
- 2) Brown Dual-Tone PU Material The submitted samples were trimmed to 2.5" w. x 2.5" l.
- 3) Burnt Orange Genuine Leather The submitted samples were trimmed to 2.5" w. x 2.5" l.
- 4) White Hook Material 2.5" l. sections were cut from the submitted roll. The left margin of one section removed. The right margin of another section was removed. The two samples were attached side by side (sides with margin removed touching) to the bottom of the sled. The seam was centered front to back on the sled. The overhanging material was removed.

#### GAYNES LABS INCORPORATED

#### TEST PROCEDURE: (Continued)

- 5) White Loop Material Same preparation as the Hook Material. A typical test sample, attached to the sled bottom, is shown in Photo No. 1.
- 6) Plate Glass The edges of the cut glass piece were rounded slightly with a diamond file. The glass surfaces were cleaned with a mild detergent followed by a residue-free solvent.

A metal sled, approximately 2.5" l. x 2.5" w. x 0.25" t. was fabricated. The bottom of the sled was lined with the specified high density foam. Prior to each test, the weight of the sled, with the sample attached, was adjusted to 453.59 grams (1 lb.), as requested. The sled on the runway is shown in Photo No. 2

The runway was cleaned with isopropyl alcohol and dried with a soft, lint-free cloth. The sled, with the sample to be tested attached, was gently placed on the surface of the runway (304 Stainless-Steel, #8 Mirror Surface). The sled was pulled across the runway at a speed of 152.4 mm per minute for a total distance of 200 mm. The mirrored surface is shown in Photo No. 3. An overall view of the test setup is shown in Photo No 4.

The initial force to start sled movement and the average force from the 25 mm distance to the 175 mm distance were reported. The sled weight was divided into these values to obtain the Static and Kinetic Coefficient of Friction. One sample of the glass was tested 5 times. Five different samples for each of the remaining materials were tested.

#### **TEST RESULTS:**

Detailed test results are listed on the attached data sheets. It should be noted that the high COF of the two PU materials caused the sled bounce and chatter across the runway as they were being pulled across the runway instead of moving smoothly across the runway, as was the case with the other materials.

Please contact me if you have any questions regarding this test program.

Very truly yours,

Philip D. Ross

### **GAYNES LABS INCORPORATED**

## GENERAL STATEMENT COVERING THIS REPORT:

This report is submitted for the exclusive use of the Wilson Sporting Goods Company. Its significance is subject to the representative nature of the samples submitted and the tests and examinations made. No quotations from this report or use of the Gaynes Labs Incorporated name is permitted except as expressly authorized by Gaynes Labs Incorporated in writing.

Gaynes Labs Incorporated assumes no responsibility for the result of the observance or non-observance by the Wilson Sporting Goods Company of the product standard contained in this report or upon the relations between the Wilson Sporting Goods Company and any party or parties arising out of the sale or use of the product or otherwise.

The Wilson Sporting Goods Company shall indemnify and hold harmless Gaynes Labs Incorporated its employees and agents from any and all claims, demands, actions, and costs that may arise out of:

- (a) Any dangerous defect or content in the item being tested, whether apparent or not, which dangerous defect or content was not disclosed in writing to Gaynes Labs Incorporated by the Wilson Sporting Goods Company at the time the item was submitted for testing;
- (b) Differences between those items actually tested and items previously or subsequently produced which are purported to be identical to the item tested;
- (c) Any use of the tested item, whether by the Wilson Sporting Goods Company or a third party, following its return to the Wilson Sporting Goods Company from Gaynes Labs Incorporated.

Gaynes Labs Incorporated

Philip D. Ross

# BEST AVAILABLE COPY

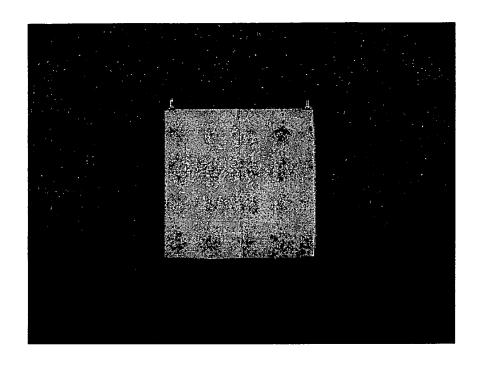


Photo No. 1 - Loop Samples Attached to the Sled Bottom

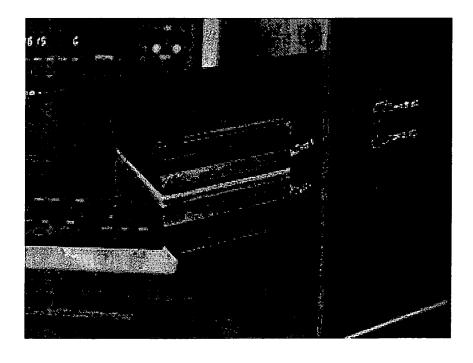


Photo No. 2 - Weight Modified Sled on Runway

# GAYNES LABS INCORPORATED

# **BEST AVAILABLE COPY**

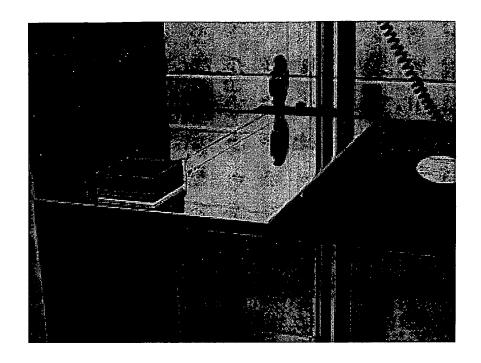


Photo No. 3 - 304 Stainless-Steel, #8 Mirror Surface Runway

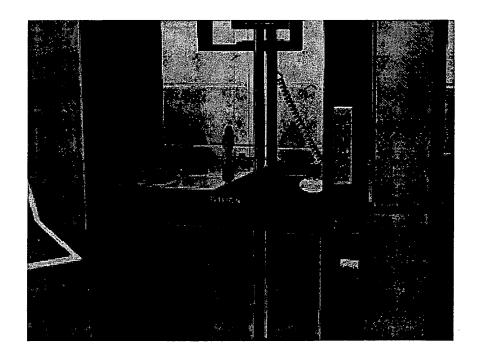


Photo No. 4 - Overall View of Test Setup

WILSON SPORTING GOODS COMPANY Gaynes Labs, Inc. Job No. 05448
Modified ASTM D1894-01 Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting
Material Type: White Single Tone PU Material

Sample	Staic Force	Sled Weight	Static	Av. Kinetic Force	Sled Weight	Kinetic
No.	(Grams)	(Grams)	COF	(Grams)	(Grams)	COF
1	1617.19	453.59	3.57	1227.30	453.59	2.71
2	1912.53	453.59	4.22	1305.90	453.59	2.88
3	2007.64	453.59	4.43	1259.10	453.59	2.78
4	1793.41	453.59	3.95	1227.40	453.59	2.71
5	1792.09	453.59	3.95	1198.70	453.59	2.64
Average	1824.57	453.59	4.02	1243.68	453.59	2.74
StDev	146.87	00.0	0.32	40.82	0.00	0.00
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Modified ASTM D1894-01 Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting Material Type: Brown Dual-Tone PU Material Gaynes Labs, Inc. Job No. 05448 WILSON SPORTING GOODS COMPANY

	Staic Force	Sled Weight	Static	Av. Kinetic Force	Sled Weight	Kinetic
	(Grams)	(Grams)	COF	(Grams)	(Grams)	COF
	1450.26	453.59	3.20	1239.70	453.59	2.73
	1556.92	453.59	3.43	1219.50	453.59	2.69
	1487.71	453.59	3.28	1238.30	453.59	2.73
	1517.79	453.59	3.35	1206.90	453.59	2.66
	1871.33	453.59	4.13	1339.40	453.59	2.95
	1576.80	453.59	3,48	1248.76	453.59	2.75
	169.24	0.00	0.37	52.48	0.00	0.12
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Sample	Staic Force	Sled Weight	Static	Av. Kinetic Force	Sled Weight	Kinetic
No.	(Grams)	(Grams)	COF	(Grams)	(Grams)	COF
1	179.11	453.59	0.39	172.32	453.59	0.38
2	165.29	453.59	0.36	159.88	453.59	0.35
3	183.02	453.59	0.40	172.78	453.59	0.38
4	179.34	453.59	0.40	164.02	453.59	0.36
5	179.01	453.59	0.39	160.39	453.59	0.35
Average	177.15	453.59	0.39	165.88	453.59	0.37
C+Dog	707	000		0000	70.00	
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Sample	Staic Force	Sled Weight	Static	Av. Kinetic Force	Sled Weight	Kinetic
No.	(Grams)	(Grams)	COF	(Grams)	(Grams)	COF
1	64.35	453.59	0.14	50.33	453.59	0.11
2	53.48	453.59	0.12	52.43	453.59	0.12
3	52.24	453.59	0.12	51.27	453.59	0.11
4	57.44	453.59	0.13	53.86	453.59	0.12
5	55.99	453.59	0.12	52.46	453.59	0.12
Average	56.70	453.59	0.13	52.07	453.59	0.11
						77.0

Modil	Modified ASTM D1894-01 Static		and Kinetic Coefficients of Friction of Plastic Film and Sheeting terial Type: White Loop Material	White Loop Material	astic film and M	)
Sample	Staic Force	Sled Weight	Static	Av. Kinetic Force	Sled Weight	Kinetic
No.	(Grams)	(Grams)	COF	(Grams)	(Grams)	COF
1	84.10	453.59	0.19	71.84	453.59	0.16
2	96.08	453.59	0.18	70.00	453.59	0.15
3	81.99	453.59	0.18	74.21	453.59	0.16
4	79.18	453.59	0.17	72.87	453.59	0.16
5	79.97	453.59	0.18	74.73	453.59	0.16
Average	81.24	453.59	0.18	72.73	453.59	0.16
StDov	1 0.7	00.0	90 0	90 +	(2)	
			Data Sheet No. 5			

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Modified ASTM D1894-01 Static and Kinetic Coefficients of Friction of Plastic Film and Sheeting Gaynes Labs, Inc. Job No. 05448 WILSON SPORTING GOODS COMPANY

D		COF	0.12	0.12	0.12	0.13	0.13	0.12	0.00								-				
	Sled Weight	(Grams)	453.59	453.59	453.59	453.59	453.59	453.59	0.00				\$	**************************************							******************************
late Glass	Av. Kinetic Force	(Grams)	53.54	55.90	55.93	57.21	57.43	56.00	1.55												
Material Type: Smooth Plate Glass	Static	COF	0.15	0.16	0.16	0.16	0.17	0.16	0.01												······································
Material 7	Sled Weight	(Grams)	453.59	453.59	453.59	453.59	453.59	453.59	0.00												
	Staic Force	(Grams)	69.35	73.10	70.85	71.73	75.52	72.11	2.34												
	Sample	No.	-	2	3	4	5	Average	StDev												

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